CLAIMS

What is claimed is:

1. A system for creating and using a software application for a petroleum company, comprising:

at least one processing unit;

a. at least one memory store operatively connected to the processing unit;

b. extensible N-tier software resident in and executable within the at least one processing unit;

c. an inventory of software components resident in the memory store for use by the software, at least one software component being selectively representative of a requirement of an asset of the petroleum company;

d. an input device, operatively in communication with the processing unit;

e. an output device, operatively in communication with the processing unit; and

f. at least one tier created by the extensible N-tier software, the tier comprising at least one software component, the tier further representing at least one asset of the petroleum company and performing a well-defined business function.

2. The system of claim 1 wherein the at least one software component comprises field components, well components, and log components capable of selectively representing predetermined oil field, well, and related requirements.

3. The system of claim 1 wherein the output device display is responsive to inputs from the input device, the N-tier software, applications generated using the N-tier software, or a combination thereof.

4. The system of claim 1 wherein additional software components may be created or modified manually by user input, automatically by applications generated using the N-tier software in response to internal triggers, automatically by applications generated using the N-tier software in response to external triggers, or a combination thereof.

5. A method of creation of a software application to manipulate a selected set of assets of a petroleum company, for a system comprising at least one processing unit, at least one memory store operatively connected to the processing unit, N-tier software executable within the at least one processing unit, software architecture specifications resident in the memory store for use by the N-tier software, an input device, operatively in communication with the processing unit, an output device, a communications pathway operatively connected to the processing unit, an initial set of software components where each software component selectively represents at least one asset of the set of assets, at least one tier where the tier comprises at last one software component and represents at least one asset of the set of assets and performs a well-defined business function, the method comprising:

a. selecting a software component from an inventory of software components to selectively represent requirements for each of a selected subset of assets of the set of assets;

b. obtaining a software component from outside the inventory for each requirements not satisfied by a software component from the inventory;

c. defining relationships for each selected software component and obtained software component to at least one other software component, the relationships including association of each selected software component with a tier; and

d. defining the sequencing of each of the software components into an invocable application;

e. whereby requirements of the software application to manipulate the set of assets are satisfied.

6. The method of claim 5 further comprising:

a. selecting a well component from an inventory of software components to selectively represent requirements for a predetermined number of wells;

b. selecting a log component from an inventory of software components to selectively represent requirements for a predetermined number of log components;

c. selecting a field component from an inventory of software components to selectively represent requirements for a predetermined number of fields; and

d. associating one or more well components with one or more field components and one or more log components.

7. The method of claim 5 further comprising providing each software component with a change menu wherein the change menu may be manually accessed, programmatically accessed, or a combination thereof.

8. The method of claim 5 further comprising creating one or more processing software components to process data wherein the processing software components are created under programmatic control and perform the required processing on those data upon receipt of a predefined amount of data .

9. The method of claim 5 for a plurality of processing units wherein the software components are distributed among the plurality of processing units.

10. A computer program embodied within a computer-readable medium created using the method of claim 5.